



EcoDriving in its most basic terms is “to drive a vehicle in the most fuel efficient manner to save gas and to lower emissions”. This is a term that has developed in Europe over the past several years to lower oil dependency and reduce greenhouse gases that contribute to climate change. In many EU countries, a new driver must take and pass an **EcoDriving** course before they can apply for a driver’s license. **EcoDriving** and **Drive\$mart** can be done with any vehicle, automatic or manual, old or new.

There are numerous factors that contribute to an effective **Smart Driver**; however the most important is attitude. A **Smart Driver** must want to be open to change old driving habits in the interest of saving money by lowering gas consumption and in turn lowering tailpipe emissions. Each of the following factors all contribute to **Driving Smart** but they must be viewed as a smorgasbord of tools. Each tool is effective but to attempt them all at one time would be overwhelming. Simply try several tools until they become second nature to your driving style. After these are completed try several others. Once you have made the commitment to become a **Smart Driver** it is important that you monitor your progress on a daily basis and then compare the results when you fill at the pump. It will take focus to change habits but the rewards are real. With modest progress, one can increase their mileage by 10-30%. This will have the effect of buying \$4.00 gas for as little as \$2.80.

These factors can contribute to gas savings, increased safety and lower emissions are the following:

PHYSICS

- **Weather**- warmer air and road temps will increase you mileage, colder temps will lower them due to various factors such as air density, temps effects on mechanical parts and engine lubrication.
- **Momentum**: also try to maintain momentum by anticipating stop light changes and by avoiding the needless use of brakes.
- **Speed**: avoid speeds above 55 mph and maintain steady speed at all times; gas savings up to \$0.92 per gallon.*
- **Weight**: remove all extra weight from the vehicle; gas saving up to \$0.08 per gallon.*
- **Air resistance**: remove roof racks when not in use; reduces frontal area to decrease drag.
- **Initial startup**: the worst mileage and greatest emissions will be in the first 5 minutes to 5 miles, on a cold engine.
- **Coasting**: when practical, put engine in neutral and let vehicle naturally coast on hills..
- **Highway driving**: 50% of all energy is used to overcome drag / rolling resistance. Higher speeds=more drag/resistance*
- **Idling**: gets 0mpg and can consume up to 1 gal of gas per hour. Excessive idling can cause damage to engine components. ^

MAINTENANCE

- **Tires**: inflate and constantly maintain pressure to maximum sidewall PSI on the tire; gas savings up to \$0.12 per gal.*
- **Oil**: consider low viscosity synthetic oil to give maximum engine lubrication; gas savings up to \$0.08 per gallon.*
- **Tune-up**: consider regular tune-ups to maintain engine efficiency; gas savings of up to \$0.20 per gallon.*
- **Block Heater**: engine block heaters can increase mileage and lower emissions at initial startup. A timer should be used with a 3 hour limit; consider use of a radiator block; this can increase cold start efficiency by 10% and lower emissions by 60%^
- **Logbook**: consider recording gas purchases as well as daily mileage to determine trends and performance.

PLANNING

- Decide which route to take (freeway/highway/street) depending on time of day (rush hour), weather conditions (snow or rain) and terrain (hills and stop signs)
- When you start your vehicle after sitting for 1 hour, it pollutes 5 times more than when the engine was warm.
- Combine trips, going to the farthest first and then coming back home; short trips from a cold start use twice as much fuel.
- Always try to leave space between you and other vehicles to allow you more options in changing driving conditions

DRIVING STYLE

- **Acceleration**: always come up to speed in a moderate and steady manner. Avoid sudden speed increases.
- **Stopping**: avoid complete stops when possible. Anticipate intersection traffic to avoid coming to a complete stop.
- **Speed**: speed will kill mileage. Try to go the speed limit or 5 mph below as traffic conditions allow. Steady speed is best, with few impulsing. Each 5 miles above 55mph is like paying \$0.16 per gallon more for gas.*
- **Parking**: always look for face out parking to avoid using reverse gear. Face to the sun in winter for solar heating.
- **Hills**: decrease speed to go up a hill and then coast on the downhill or regain speed.
- **AC and Cruise**: avoid the use of AC when bearable and do not lower windows completely. Use cruise only at highway speeds and on level roads and avoid its use in hilly terrain.*
- Maintain a safe following distance to reduce stop and go driving and to allow you better driving options.
- **Aggressive driving**: wastes gas 33% at highway speeds and 5% around town. That’s up to \$1.72 extra per gallon.*
- Avoid idling more than 1 minute; restarting costs \$12 per year in operating costs but reduces emissions and engine wear.*

*U.S. Department of Energy (based on \$4.00 per gal) ^ Natural Resources of Canada + Clean Air Wisconsin

“Drive Less When You Can ... Drive\$mart When You Do”

For additional information contact DriveSmartWI.Com